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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,074	04/15/2002	Kenji Koishi	2002-0023A	3830
513 7590 02/09/2007 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER ZHAO, DAQUAN	
			ART UNIT	PAPER NUMBER
			2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/031,074

Applicant(s)

KOISHI ET AL.

Examiner

Daquan Zhao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS; WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/28/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-48, 50, 64-68 and 70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44-48, 50, 64-68, 70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Status

1. Claims 1-43, 49, 51-63, 69, and 71-79 are canceled, and claims 44-48, 50, 64-68 and 70 are currently amended.

Response to Arguments

2. Applicant's arguments filed 12/28/2006 have been fully considered but they are not persuasive.

In re page 10 of the applicant's argument, applicant argues there is no disclosure or suggestion that the audio data of each channels is being stored.

In responds, the examiner respectfully disagrees. Column 2, lines 35-38 of Arai teach the audio of each channels is being stored.

The grounds of rejected are maintained. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEG § 706.07 (a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 44-45, 48, 50, 64-65, 68,70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai (US 6,169,844 B1), and Otaka et al (US 6,044,198).

For claim 44, Arai teaches a method of recording video data of N (N is an integer) channels synchronously onto an optical disk (e.g. figure 2A, video and audio signals SVA to SVD, figure 2B, optical disk 12), the video data formed of a time series of video frames (e.g. figure 2A, MPEG compressor 7A to 7D), the input video data on each channel being accompanied by audio data that is recorded synchronously with the video data (e.g. figure 2A, video and audio signals SVA to SVD, column 2, lines 25-51), the method comprising:

Selecting one of the N channels in units of frames (e.g. column 10, lines 60-67, GOP) as a channel of which video data is recorded (e.g. figure 2A, multiplexer 8, column 2, line 52 – column 3, line 3, encoded data DFA to DFD corresponding to the plurality of programs are multiplexed on a bi-by-bi basis);

Recording the video data on the selected channel onto the optical disk (e.g. figure 2B, optical disk 12, column 3, lines 3-15); and

Recording the audio data on N channels as well as the video data on channel (e.g. figure 2A, video and audio signals SVA to SVD, column 2, lines 25-51)

Whereby the video data on N channels can be time-division multiplexed and recorded onto the optical disk (e.g. figure 2A, multiplexer 8, column 2, line 52 – column 3, line 3, encoded data DFA to DFD corresponding to the plurality of programs are multiplexed on a bi-by-bi basis, and figure 3A-3F).

However, Arai fails to teach the arranging the video data and the audio data into each frame. Otaka et al teach arranging the video data and the audio data into each frame (e.g. figure 7, One Frame contains video data 202 and audio data 201, column 12, lines 16-40). It would have been obvious for one ordinary skill in the art at the time the invention was made to have utilized the frame of video and audio disclosed by Otaka et al in the system disclosed by Arai to provide a digital signal recording and reproducing device capable of remarkably reducing the memory capacity necessary for the storage device (Otaka et al, column 3, lines 18-33).

Claim 64 is rejected for the same reasons discussed as claim 44.

For claims 45 and 65, Arai teaches each channel is selected at every N bits (or frames) as a channel of which video is record. Otaka et al teach the frames. Please see discussion for claim 44 above.

For claims 48 and 68, Arai teaches when each of the video data on the N channels (N is an integer) in a predetermined recording time (e.g. column 5, lines 57-65, time range 9:00-930) is to be synchronously recorded onto the optical disk, the method comprises:

Getting a total data amount for the N channels of video data to be recorded in the predetermined recording time (e.g. column 5, line 67- column 6, line 42, and figure 6, shows the recording capacity required, using recording rate to calculate the recording capacity needed), and a capacity of free area of the optical disk in which data can be recorded (e.g. column 5, lines 1-11, unused recording capacity);

Comparing the total data amount to be recorded with the capacity of free area of the optical disk (e.g. column 6, lines 36-48, system display the plurality of combinations of figure 6 and display the unused recording capacity is 2GB); and

Determining, when the total data amount to be recorded is greater than the capacity amount of the optical disk (e.g. column 7, lines 40-67, if total data amount to be recorded is greater than the capacity amount of the optical disk, the recording rate would be greater than the maximum recordable rate X. in this case, system display "impossibility to accept the additional reservation), the number of the video frame to be recorded in a predetermined time so that at least one of the N channels the total data amount to be recorded is less than or equal to the capacity of free area of optical disk (e.g. system calculate a new available recording mode with reference to the maximum recordable rate X and the unused capacity of the optical disk 12, and display the result of calculation).

For claims 50 and 70, Arai teach a method of reproducing recorded data from an optical disk having an area in which video data on N channels (N is an integer) is recorded in units of frames by a time-division multiplexing method (e.g. figure 2, multiplexer 8), the optical disk storing the video data selected in every predetermined

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number of frames on one channel, and audio data on all channels continuous to the video data (see the teaching above), the method comprising:

Inputting information for designating a channel to be reproduced (e.g. column 4, lines 1-36, video and audio signal are supplied to monitor in response to user's operation);

Reading data from the optical disk in units of frames (e.g. column 4, lines 1-36, SVA to SVD);

If the video data included in the read frame is video data of designated channel to be reproduced, then reproduce the video data, and further reproducing audio data.

However, Arai fail to teach the audio and video are in the same frame. Otaka et al teach video data and the audio data are in the same frame (see the motivation above).

4. Claims 46, 47, 66, 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai (US 6,169,844 B1), and Otaka et al (US 6,044,198), as applied to claims 44-45, 48, 50, 64-65, 68,70 above, and further in view of Fries (US 6,317,885 B1).

Please see the teaching of Arai and Otaka et al above.

For claims 46 and 66, Arai teaches an allocation ratio of the number of data for each channel to be recorded in a predetermined time is determined according to the recording mode (e.g. column 2, lines 48-51). However, Arai and Otaka et al fail to teach the content of the video data. Fries teaches the content of the video data (e.g. column 4,

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lines 17-28, meta-data indicates the content of the video data). It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teaching of Fries with the system disclosed by Arai and Otaka et al to facilitates an interactive relationship between transmitted programming and information related thereto (Fries, column 2, lines 7-9).

For claims 47 and 67, Fries teaches the video data to be recorded includes attribute data indicating the contents of the video data, the attribute data is detected from the video data, and the content of the video data on each channel is determined according to the detected attribute data (e.g. column 4, lines 17-28, meta-data indicates the content of the video data).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kassatly (US 5,508,733);

Choi (US 5,615,017).

Ashley et al (US 6,584,273 B1, figure 10).

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The grounds of rejected are maintained. Accordingly, THIS ACTION IS MADE FINAL. See MPEG § 706.07 (a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing data of this action. In the event a first reply is filed within TWO MONTHS of the mailing data of this action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period. Then the shortened statutory period will expire on the data the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing data of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the data of this final action.

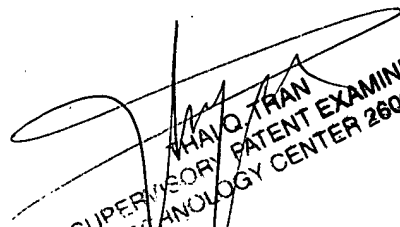
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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